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February 22, 2021

Mr. James Bennett, Chief
Office of Renewable Energy Programs
Bureau of Ocean Energy Management
45600 Woodland Road
Sterling, Virginia 20166
ELECTRONIC SUBMISSION

RE: ***Docket No. BOEM-2020-0066***
South Fork Wind Farm and South Fork Export Cable Project Draft Environmental Impact Statement
New York State Comments

Dear Mr. Bennett:

The New York State Departments of State (DOS) and Environmental Conservation (DEC) in consultation with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and Transportation ((DOT); collectively "the Agencies"), jointly submit the below and attached comments in response to the Bureau of Ocean Energy Management's (BOEM) Notice of Availability of a Draft Environmental Impact Statement (DEIS), dated January 8, 2021 pursuant to the National Environmental Policy Act (NEPA), for the proposed Deepwater Wind South Fork, LLC project.[1]

New York State ("the State" or "NYS") has a significant interest in the outcome of this project, both for its potential impacts as well as its ability to further Governor Cuomo's commitment to achieving 100% clean and carbon-free power by 2040 and at least 9 gigawatts of offshore wind by 2035 under the Climate Leadership and Community Protection Act (CLCPA). New York's leading clean energy goals are complemented by the State's ongoing commitment to minimizing impacts to ocean uses and resources through the responsible development of offshore wind in the Atlantic Ocean. The State currently has three contracted offshore wind projects and recently selected two additional offshore wind projects that, in total, are anticipated to have a collective capacity to generate at least 4.3 gigawatts.

[1] 86 FR 1520 [January 8, 2021]

The attached comments support appropriate offshore wind development and timely completion of the NEPA environmental review. The Agencies note that, notwithstanding BOEM's intent to analyze the environmental impacts of the entire project footprint including State waters relevant to the Corps of Engineer's permitting authority and upland transmission components, the State is close to completing a concurrent and parallel process pursuant to Article VII of New York State Public Service Law § 120 et. seq. that will address transmission components that fall within the State's jurisdictional boundary.[2] The State's Article VII review is evaluating environmental impacts as well as State easements issued by the New York State Office of General Services. New York, furthermore, has the nation's most aggressive legislation to support the replacement of harmful fossil-fuel electrical infrastructure with renewable energy under the CLCPA which is designed to directly address environmental injustice issues and provide direct support for disadvantaged communities. Moving forward as we continue to collaborate on offshore wind development, there may be opportunities for efficiencies in the federal review of the export cable by gleaning data, analyses and conditions generated as part of the State's Article VII process. At a minimum, the State encourages continued close federal coordination with New York State Department of Public Service on its Article VII findings. The State also recommends streamlining the federal review in State waters to focus on federally jurisdictional activities (e.g., Clean Water Act Section 404 and 40 CFR 93 [General Conformity]) to avoid duplication of review that could cause confusion and has the potential to invoke further unnecessary development risk, which can translate to higher costs for New York ratepayers.

The Agencies generally agree with the scope of the issues identified in the DEIS and believe that the identified impacts can be addressed in ways that will provide for a successful outcome. As identified in our scoping comments, we anticipate that most significant adverse impacts resulting from offshore wind development in the lease area were already identified and avoided and minimized to the extent feasible in the 11 preceding years of consultation between federal and state agencies. In the end, BOEM's No Action Alternative is not an acceptable path forward based on the analysis of impacts.

The Agencies commend BOEM on including a Distributed Temperature Sensing System on the export cable, a system which continuously monitors data to determine if burial conditions have changed and remedial actions are warranted. Similarly, we were pleased to see BOEM specify that the export and inter-array cables would be removed upon decommissioning. BOEM undertook a careful review of the underwater noise exposure by assuming "difficult" pile installation, which is highly likely given the challenging, boulder-strewn seabed. These and other mitigation and monitoring measures presented in the DEIS demonstrate BOEM's commitment to responsible offshore wind development.

[2] See Item No. 144 in Article VII Case Number 18-T-0604. Available at: http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?Mattercaseno=18-T-0604

While the Agencies' detailed comments appended to this letter are supportive of appropriate offshore wind development in this project area, we would like to highlight the following key issues as these likely warrant further discussion and continued coordination:

- ***NEPA Alternatives:*** The alternatives to the Proposed Action would benefit from additional detail to fully justify the anticipated magnitude of impact. For example, more explanation is needed to support the conclusion that the Vessel Transit Lane Alternative would not measurably decrease impacts when compared to the Proposed Alternative and in the cumulative impacts analysis, given that there would be fewer wind turbine generators installed. Likewise, it was challenging to evaluate the Fisheries Habitat Impact Minimization Alternative ("Habitat alternative") because there was little mapping provided to identify exactly what complex finfish habitat may be avoided. The South Fork Wind Farm (SFWF) contains specialized and topographically distinct hard-bottom habitats, particularly Cox Ledge, that serve as important spawning sites and shelter areas for commercially and recreationally important species to New York (e.g., Atlantic cod, American lobster, black sea bass, longfin squid, monkfish). Further explanation is needed of why the Habitat alternative was not identified as an Environmental Protection Measure (EPM) to minimize impacts to complex finfish habitat within the SFWF (and other offshore wind facilities), instead of being discussed as a project alternative. In the absence of such information and given what an important part of the DEIS it represents, the Agencies recommend evaluation of whether minimizing impacts to complex finfish habitat can be considered as an EPM.

- ***Cable Burial Depth:*** The NEPA analysis should demonstrate that all reasonable measures are being taken to achieve a 6-foot target burial depth, avoid the use of secondary cable protection measures, and minimize risks to mariners, as informed by a cable burial risk assessment that evaluates the full range of existing and future risks of external aggression. Armed with this detailed analysis, BOEM could ascertain where remedial burial should be undertaken if target burial depth is not initially achieved and when secondary cable protection measures (e.g., concrete mattresses) are warranted, as it may not be necessary to install them in every location target burial depth is not attained.

- ***Scientific Surveys:*** Finally, immediate action is needed to address BOEM's finding of major adverse impacts to scientific research and protected species surveys. If National Oceanic and Atmospheric Administration (NOAA) survey vessels are excluded from operating in offshore wind facilities, it will lead to poorer data and greater uncertainty in stock assessments that will in turn result in more conservative catch limits (i.e., lower "quotas"). While this may be inadvertently beneficial to stock biomass, reduced data quality has a negative impact on confidence in the robustness of fisheries assessments and diminishes the overall effectiveness of the management process in balancing the interests of both the fisheries and the stocks on which they rely. BOEM's commitment to continued collaboration with NOAA is certainly helpful, but BOEM must also take bold action to significantly increase federal investment to evolve survey technologies, adapt methodologies, and develop calibrations for long-term

time series so that adequate surveys can be undertaken and offshore wind development does not become a dominant driver for fisheries management decisions.

The Agencies appreciate the opportunity to provide this input as BOEM continues its review of the South Fork project and reviews of other Construction and Operations Plans for wind farm projects across the Northeast. Please contact Michael Snyder, Ocean and Great Lakes Program Manager at DOS (518-486-4644; michael.snyder@dos.ny.gov); Karen Gaidasz, Offshore Wind and Hydroelectric Section Chief at DEC (518-402-9153; karen.gaidasz@dec.ny.gov) for further detail on the attached scoping comments and future opportunities to provide comment.

Sincerely,

Kisha Santiago
Deputy Secretary
Department of State

Sean Mahar
Chief of Staff
Executive Deputy Commissioner
Department of Environmental Conservation

ecc: BOEM – Michelle Morin, Mary Boatman
USACE – Steven Ryba, Lisa Gruzdinski

Attachment

New York State Agency Comments
South Fork Wind Farm and South Fork Export Cable Project
Draft Environmental Impact Statement

Federal Docket #: BOEM–2020–0066

General Comments

1. The scope of upgrades for the Operations and Maintenance (O&M) facility at Port of Montauk, NY has been refined in the federal permit application to the U.S. Army Corps of Engineers (USACE). The Agencies recommend that the COP and DEIS be updated to reflect the current scope of activities, including eliminating the bulkhead refacement and waterward encroachment and reducing the area and volume dredged (i.e., dredge up to approximately 2,500 cubic yards of sediment from an approximately 1,500 square foot area to a depth of 12.4 feet below the plane of mean low water, including a 1-foot overdredge).
2. The Vessel Transit Lane Alternative ("Transit alternative") analysis should include more information on why this alternative would not measurably decrease impacts when compared to the Proposed Alternative and in the cumulative impacts analysis. Presumably, the Transit Alternative would increase access and maneuverability within the Massachusetts/Rhode Island Wind Energy Area (MARI WEA), which could reduce impacts to commercial fishermen and lower workers within fishing communities. By requiring fewer monopile foundations and less scour protection, it seems reasonable to assume the alternative could also lead to decreased impacts to benthic habitat, Essential Fish Habitat (EFH), finfish, and invertebrates by reducing direct impacts to habitat during construction and reducing longer-term impacts from habitat conversion.
3. The Fisheries Habitat Impact Minimization Alternative ("Habitat alternative") should be an Environmental Protection Measure (EPM) to minimize impacts to complex finfish habitat, instead of being discussed as a project alternative. As the DEIS acknowledges, there are specialized and topographically distinct hard-bottom habitats found in the SFWF, particularly Cox Ledge, that serve as important spawning sites and shelter areas for commercially and recreationally important species to New York (e.g., Atlantic cod, American lobster, black sea bass, longfin squid, monkfish). Complex hard-bottom habitats do not recover as quickly from disturbances during construction like relocating substrate or habitat conversion, and measures that minimize long-term impacts to hard-bottomed substrates directly benefit the species that rely upon them. If protection of complex finfish habitat continues to be identified as a project alternative (not an EPM), then it is an alternative that must in some fashion be selected for every offshore wind project. Overall, it is very challenging to evaluate this alternative because there are no definitions and little mapping provided to identify exactly what is complex finfish habitat. The Agencies recommend the following updates as part of the FEIS:
    a. Eliminate Scenario A where wind turbine generators (WTGs) "are sited within and adjacent to complex habitat and micrositing would not reduce impacts to complex

habitats."[3] This appears to be identical to not selecting the alternative. Rather, the alternative should specify "not-to-exceed" thresholds to ensure project viability, such as identifying the maximum number WTGs that could be eliminated.

b. Clarify how complex habitat areas would be prioritized for protection, in the event Scenario B is selected where there are more locations of complex habitats within the project area than can be fully avoided. At a minimum, larger contiguous areas of complex habitats should be prioritized for protection. Identify criteria that would be used to determine when micrositing alone is not sufficient to protect complex habitat and eliminating a WTG becomes necessary.

c. Provide more explanation to justify how selecting the Habitat Alternative would not reduce impacts to habitats, fisheries, and commercial and for-hire fishing when compared to the Proposed Action. Cox Ledge is a very productive area for a variety of fish species. If the Proposed Action disturbs cod spawning habitat, it could lead to population level effects since their stock is already very low. Similar stock impacts could occur for species that use these habitats for sheltering. Fishing could realize indirect benefits if adopting the Habitat Alternative led to increased fishing access, as alluded to on p. 3-105.[4]

4. The Agencies have identified the following inaccuracies on Table A-1. Cooperating Agencies, Required Environmental Permits, and Consultations for the Project:

a. The current State Pollutant Discharge Elimination System (SPDES) General Permit is GP-0-20-001, not GP-0-15-002.

b. It is unclear why an Individual SPDES permit may be required for construction greater than 1 acre at the substation. Generally, construction activities over 1 acre are covered under GP-0-20-001, unless they are determined to be an ineligible activity as listed in Part 1, Subparagraph F of GP-0-20-001.

c. Table A-1 incorrectly lists Environmental Conservation Law (ECL) Article 70 (Uniform Procedures) as a permit/approval. ECL Article 70 outlines the timeframes and procedures for administering DEC's key regulatory permits and is not a permit/approval. The Coastal Erosion Hazard Area permit that is referenced in Table A-1 is regulated pursuant to Article 34 of the ECL.

d. Table A-1 does not differentiate between the DEC permits/approvals that are required for the Montauk O&M facility versus those statutory and regulatory standards under the DEC's original jurisdiction that require a demonstration of compliance pursuant to Article VII of the Public Service Law for the South Fork Export Cable (SFEC). Applications for DEC permits/approvals must be filed with DEC for the Montauk O&M facility, including a Section 401 Water Quality Certification, Article 25 Tidal Wetlands Permit and an ECL Article 15 Protection of Waters Permit (excavation and

[3] See DEIS, p.3-34. "Scenario A: WTGs are sited within and adjacent to complex habitat and micrositing would not reduce impacts to complex habitats."

[4] See DEIS, p.3-105. ""Because it would reduce the number of WTG sites, the Habitat alternative would improve the ability of commercial fishing vessels to access the waters around the Lease Area relative to the Proposed Action. Consequently, the level of commercial fishing revenue exposed to offshore wind energy development would be less than under the Proposed Action."

fill activities). For the SFEC, the following statutory and regulatory standards apply pursuant to the ECL and its implementing regulations in Title 6 of the New York Codes, Rules and Regulations ("6 NYCRR"): (1) ECL Articles 11, 13, and 25 and their implementing regulations regarding marine resources, such as fisheries and habitat; (2) ECL Article 11 and 6 NYCRR Part 182, relating to threatened and endangered Atlantic sturgeon; (3) ECL Article 17 and 6 NYCRR Parts 700-706, relating to water quality; (4) ECL Article 15 and 6 NYCRR Part 608, regarding water quality and excavation and fill activities; and (5) ECL Article 27 and 6 NYCRR Part 360, et seq., relating to disposal and management of solid waste.

5. Table 2.1.1-1 should include scour protection, in addition to foundation cable protection.
6. Additional detail should be provided in the description and analysis of conceptual decommissioning activities:
    a. The Agencies commend BOEM for identifying the importance of cable removal during decommissioning in Section 2.1.1.5; however, it is confusing to include the regulatory reference to 30 CFR 585, Subpart I as the regulations include the option to decommission cables-in place.[5]
    b. Section 2.1.1.5, p.2-8 should indicate that attempts would be made to remove secondary cable protection and scour protection during decommissioning. Following decommissioning activities, seabed contours should be restored to pre-construction elevations where feasible.
    c. In Section 2.1.1.2, p. 2-8, BOEM should clarify that a NEPA document analyzing decommissioning activities would be prepared if the project components left in-place (e.g., cables, secondary cable protection, scour protection) or components not decommissioned have the potential to interfere with traditional and reasonably foreseeable future uses at the time of decommissioning.

Cable Burial Depth and Secondary Cable Protection Measures

7. BOEM and the developer should demonstrate that all reasonable measures are being taken to maximize burial depth, avoid the use of secondary cable protection measures, and minimize risks to mariners, as informed by a cable burial risk assessment that evaluates the full range of existing and future risks of external aggression.[6] Along the proposed route on the Outer Continental Shelf (OCS), the SFEC would cross challenging sediment conditions where an estimated 2.9 miles of the cable would be buried less than 4ft deep[7] and nearly 180 acres of concrete mattresses are projected to be needed.[8] The SFEC-OCS would be installed in an

[5] 15 CFR § 585.902(a) states, "Except as otherwise authorized by BOEM under § 585.909, within 2 years following termination of a lease or grant, you must:
(1) Remove or decommission all facilities, projects, cables, pipelines, and obstructions;
(2) Clear the seafloor of all obstructions created by activities on your lease, including your project easement, or grant, as required by the BOEM."

[6] https://prod-drupal-files.storage.googleapis.com/documents/resource/public/cable-burial-risk-assessment-guidance.pdf

[7] See COP (2020), p.3-38

[8] See DEIS (2021), p.3-17.

existing major coastwise shipping route located off the south shore of Long Island and in areas heavily fished by New York commercial fishermen using mobile bottom-tending gear. The SFEC-OCS would also run parallel to and within the proposed tug-tow safety fairway,[9] which may increase the future risk of an anchor strike. Neither the DEIS nor the COP presents a detailed analysis of risks to the SFEC or inter-array cables (e.g., the SFEC was effectively excluded from the study area evaluated in the Navigation Safety Risk Assessment). To that end, the Agencies recommend conducting a cable burial risk assessment to inform the target burial depth and identify where installing secondary cable protection measures is justified. BOEM should require that remedial burial be undertaken if target burial depth is not initially achieved, unless additional passes with the installation tool risk causing damage to the cable or the installation tool or, due to geologic obstructions, additional passes would not increase the burial depth or risk causing cable exposure. Finally, BOEM and the developer should identify specific instances when secondary cable protection measures are warranted, as it may not be necessary to install them in all instances where target burial depth is not achieved (e.g., in very firm or cohesive sediments where the risk of external aggression would also be low).

Air Quality

8. On p. 3-142, the Proposed Action Alternative states, "With respect to air quality, state and local agencies would be responsible for minimizing and avoiding air quality impacts on nearby neighborhoods during Project construction. Therefore, potential adverse impacts to minority and low-income populations associated with changes in air or water quality as a result of Project construction would be temporary and minor to moderate and are not expected to appreciably exceed those experienced by other adjacent populations." This statement places all of the burden on the State to mitigate construction emissions. Under general conformity, it is usually the responsibility of the project sponsor to minimize emissions during construction and if necessary, offset emissions when a general conformity threshold is exceeded. Similar language appears on pp. 3-144, 3-150, 3-154 and 3-155. These sections should be revised in accordance with the general conformity rule.
9. Section 3.3.1.1 on p. H-1 states, "The activities for which BOEM has permitting authority are outside of any non-attainment area and therefore not subject to the requirement to show conformity." Since the DEIS covers all activities for the Proposed Action, the paragraph should be amended to read, "While the activities in the lease area are outside of any non-attainment area, a number of activities covered by this DEIS and described in the COP are within the non-attainment area and therefore must comply with the general conformity requirements of 40 CFR Part 93." According to § 93.154, "Where multiple Federal agencies have jurisdiction for various aspects of a project, a Federal agency may choose to adopt the analysis of another Federal agency or develop its own analysis in order to make its conformity determination." The DEIS should identify the Federal agency responsible for the

[9] See 85 FR 37034 [June 19, 2020]

general conformity determination for those areas of the Proposed Action that are within the non-attainment area.

10. The following corrections (shown as *underlined italics* and strikeout) should be made to Appendix H - Assessment of Other Resources, Section 3.3.1.1:
    a. On p. H-1, bullet 3 should be modified as follows, "The New York-Northern New Jersey-Long Island area, also known as the New York Metro Area, which encompasses Middlesex County, Connecticut, and Suffolk County, New York, is currently in *serious non-attainment with the 2008 8-hour O3 standard and* moderate non-attainment with the 2015 8-hour O3 standard. *Suffolk County is also maintenance for the 2006 24-hour NAAQS for fine particulates (PM2.5)."*
    b. On p. H-2, paragraph 1 should be modified as follows, "Connecticut, New York, and Massachusetts have *and will continue to* ~~all~~ adopt~~ed~~ SIPs to mitigate the impact that regulated air pollutant emissions have on air quality."
    c. On p. H-2, paragraph 2 should be modified as follows, "Depending on the final Project design, Project air emissions could affect seven non-attainment areas in the analysis area: Hartford, Middlesex, New London, Tolland, and Windham Counties, Connecticut; Dukes County, Massachusetts; and Suffolk County, New York. The EPA classifies these seven counties as being in non-attainment for *both the 2008 and the* 2015 8-hour O3 *standards*. ~~The EPA reports no other pollutants in non-attainment status in these counties.~~ *In addition, Suffolk County is also maintenance for the 2006 24-hour NAAQS for PM2.5*."
    d. On pp. H-2 through H-3 the text should be modified as follows: "Suffolk County is an area with a high population density and a large industrial base. Emissions from the New York Metro Area, outside of Suffolk County, heavily affect the county's air quality. ~~For this reason, changes to pollutant emissions by sources within Suffolk County have little impact on overall air quality trends.~~ Monitoring data have shown little improvement in O3 levels over time. The monitored ambient O3 concentration level observed at the Riverhead air monitor in Suffolk County was 72.7 ppb averaged from 2014 to 2016, 76.7 ppb averaged from 2015 to 2017, and 75.3 ppb averaged from 2016 to 2018 (EPA 2018b). Thus, the EPA currently classifies Suffolk County as being in ~~moderate~~ *serious* non-attainment for *2008* 8-hour O3 *NAAQS* ~~according to both the 2008~~ and *moderate non-attainment for the* 2015 8-hour *O3* standards. *Suffolk County is also maintenance for the 2006 24-hour NAAQS for PM2.5*. The EPA reports that on-road vehicles are the primary source of NOx emissions in Suffolk County; non-road engines used for industrial purposes are the second-largest source. Solvent use in industry, vegetation sources, off-highway engines, and highway vehicles provide the most VOC emissions in Suffolk County."

Environmental Justice

11. The DEIS identifies adverse impacts on the Environmental Justice (EJ) population; however, there is no discussion of avoiding those impacts.

12. In Section 3.5.2.2 under Future Activities (without the Proposed Action), the DEIS states that EJ populations within the analysis areas would be expected to see long-term beneficial impact, although the impact is considered negligible. Unless this can be demonstrated locally, the DEIS should not characterize the project in this way. In particular, under the cumulative impact section there are several impacts facing EJ communities where the impact is described as moderate and BOEM expects the overall impact on EJ populations from the proposed action to be moderate.
13. On p. 3-145 Conclusions: "Proposed Action when combined with past, present, and reasonably foreseeable activities would result in moderate adverse impacts to low income and minority individuals. BOEM made this call because the overall effect to environmental justice populations would be somewhat disruptive." This statement should include a discussion of alternatives to avoid or minimize these impacts.
14. In Section 3.5.4.2.5, Fisheries Habitat Impact Minimization Alternative, the DEIS states that this proposed alternative would result in decreased impacts to air and water quality, and reduced noise levels if less trenching and time are needed to install a reduced number of WTGs and cables. The reduction of sites would reduce impacts to fisheries habitats and the commercial and recreational fisheries businesses. Therefore, this alternative would have a lower impact on EJ populations who rely on the fishing industry; however, BOEM has still identified the impacts as minor-moderate. The DEIS should identify mitigation options for the moderate adverse impacts identified, in particular the air quality impacts identified during construction.

Climate Change

15. Table E-6 - Climate Change Plans and Policies on p. E-21 of Appendix E - Cumulative Activities Scenario should be updated to include more recent NYS policies and initiatives, including but not limited to:
    a. The Climate Leadership and Community Protection Act (CLCPA), enacted on July 18, 2019, signed into law in July 2019 and effective January 1, 2020. CLCPA establishes economy-wide targets to reduce greenhouse gas (GHG) emissions by 40% of 1990 levels by 2030 and 85% of 1990 levels by 2050.
    b. 2020 Offshore Wind Solicitation - NYSERDA has provisionally awarded two offshore wind projects, totaling 2,490 megawatts – more information can be found at: https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Focus-Areas/Offshore-Wind-Solicitations/2020-Solicitation.
    c. Updates to the Clean Energy Standard – more information can be found at: https://www.nyserda.ny.gov/All%20Programs/Programs/Clean%20Energy%20Standard.
    d. Update the Governor Cuomo State of State Address. The references from 2017 and 2018 do not reflect the State's current offshore wind mandate (see prior comments).
16. Appendix H – Assessment of Other Resources, the following edits should be made:

a. Table 3.3.1-1 on p. H-3 presents the total emission inventory in tons per year for select regulated pollutants in non-attainment counties in 2014. More recent inventory data (2017) is available from EPA and should be included in this Table.
b. On p. H-4, the GHG emissions data that is referenced is from 2016. This information is outdated. The DEIS should instead use more recent data, including EPA's 2018 emissions data (https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2018).

Water Quality

17. The DEIS lacks a discussion of the impacts from cofferdam excavation and the management of the excavated material. Section 2.1.1.3.2 states, "The cofferdam would be removed; excavated sediments placed in the immediate vicinity of the cofferdam would be allowed to disperse naturally." Alternatives such as placing excavated material on barges instead of sidecasting material should be discussed. As part of the ongoing NYS Article VII proceeding, Deepwater Wind South Fork (DWSF or "developer") has agreed to prohibit sidecasting during horizontal directional drilling (HDD) pit construction and require excavated material to be placed on a barge for potential reuse as backfill during the same construction season.
18. Effects from anchoring and anchor disturbance are discussed in multiple locations in the DEIS; however, as part of the ongoing Article VII proceeding, DWSF has agreed to use of midline buoys to minimize cable sweep. Midline buoys are not mentioned in the DEIS and it is not known whether the use of these would decrease the anchor disturbance area which is estimated to be 821 acres.

Contaminated Sediments

19. Section 3.3.2.1.2 – Onshore Groundwater should include a discussion of DEC Environmental Remediation Site #152250 (the East Hampton Airport) and the potential for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) contamination in groundwater along the onshore SFEC route.

Benthic Habitat, Essential Fish Habitat, Invertebrates, and Finfish

20. The Agencies recommend BOEM and the developer continue working with NOAA on the EFH consultation and to ensure that the data and methodologies used accurately characterize and delineate complex habitats within the Project area.
21. The Agencies recommend that the Benthic Habitat Monitoring Plan include multiple pre- and post- benthic habitat surveys in order to detect potential changes in benthic habitat resulting from the Proposed Action. In addition, the development of standardized recommendations for all offshore wind benthic habitat monitoring plans will help ensure consistency and allow for better comparability between projects.
22. Additional information is needed on how natural materials would be used to reduce impacts to essential fish habitat:

a. BOEM should clarify what is meant by "[t]he use of natural materials and nature-inclusive designs" on p. 3-18. Does this refer to repurposing existing cobble and coarse substrate as secondary cable protection or scour protection?
b. More information is needed on the impacts of using natural materials (e.g., rounded boulders) to optimize ecological benefits of scour protection. For example, on p. 3-35, will the developer use materials that mimic natural hard substrates in place of others (e.g., concrete)?

23. In Appendix G, Table G-1, states that "the SFWF and SFEC offshore would minimize impacts to complex bottom habitats to the extent practicable." More detailed information is needed on the extent to which "micrositing" will be used to minimize impacts to benthic habitats. If this statement refers to the habitat alternative described on p. 3-34, what scenarios (e.g., A-D) would be most probable?
24. The Agencies support the development of an Anchoring Plan as an additional mitigation and monitoring measure. The developer should consider the feasibility of mooring for areas where vessels will be anchoring frequently to limit benthic disturbance and to protect sensitive habitats (e.g., squid spawning sites, as stated on p. 3-19). Please clarify when and how sensitive habitats would be delineated. How does this differ from complex fisheries habitat referred to in the Habitat Alternative?
25. The last paragraph on p. 3-8 states: "Invertebrates with commercial importance, such as lobster, Atlantic sea scallop, squid, and ocean quahog, are present in the SFWF and offshore SFEC." Atlantic Surfclams are also an important commercial species that are present in the SFWF and offshore SFEC and should be included in this sentence.
26. The last paragraph on p. 3-8 also states: "…bay scallop, lobster, channeled whelk (*Busycotypus canaliculatus*), and ocean quahog are present within the Montauk O&M facility site." Ocean quahogs would not be present at the Montauk O&M facility site. However, wild hard clams (*Mercenaria mercenaria*) and wild and cultured eastern oysters (*Crassostrea virginica*) would be present at this facility.
27. Vemco acoustic receivers should be installed on monopiles. Acoustic data should be retrieved, batteries replaced, and hardware maintained on a quarterly to semi-annual basis. Acoustic data should be shared with Management agencies and researchers. Funding and research should be conducted to apply acoustic tags for species potentially impacted by the Project.
28. P. 2-6 states "excavated sediments placed in the immediate vicinity of the cofferdam would be allowed to disperse naturally." As part of the ongoing Article VII proceeding, the developer has agreed to place excavated material from the HDD on a barge for use as backfill. The Final EIS should consider whether placement of excavated material on a barge could be adopted for other portions of the Project where dredging is proposed.
29. As mentioned on p. 3-11, while the Project area is relatively small compared to the Geographic Analysis Area, it represents a very important habitat for many species; particularly Atlantic Cod that use the area to spawn. Since Atlantic Cod are site-specific in their spawning activity, disruptions to this area by construction or other underwater noise could be detrimental to the success of a spawning season. Describing impacts from

construction as minor due to the large geographic scale of the geographic analysis area is dismissive of the importance of this area both as a spawning site and an area of protection for various species.

30. While no effect has been determined from EMF exposure due to AC cables on New England and Mid-Atlantic species, it is important to note that there is a lack of studies on Mid-Atlantic and New England species, which should be made clear in the Final EIS. As stated in the analysis on p. 3-11, some studies found effects of EMF exposure on Mid-Atlantic/New England species in response to EMF exposure. There is insufficient evidence on behavioral effects from EMF for species present in the SFEC area to definitively say there will be no effect. In addition, an EMF monitoring plan should be presented that would monitor EMF levels along the SFEC route post-operation.
31. The DEIS includes a 12-month construction window for the SFEC. However, the developer has agreed to time of year restrictions (including for construction activities) as part of the ongoing Article VII proceeding. As such, the Final EIS should include an updated timeline.
32. While juvenile and adult finfish would be able to leave the area when sedimentation increases from construction begins, egg and larval stage fish would be more susceptible to construction effects; especially smothering of benthic egg masses. These impacts should be addressed in the DEIS.
33. On p. 3-26, provide more information on how the area "50.2 acres (2.8% of the SFWF and SFEC footprints)" was calculated to represent conversion from hard-bottom back to soft-bottom habitat during decommissioning. A more meaningful comparison would be providing the percentage of converted habitat that would be reversed.

Marine Protected Species

34. P. 3-33 states that "no Atlantic sturgeon would be injured or killed" by the proposed action. The potential impact of construction and operation activities (e.g., noise, sediment disturbance) are not completely understood and, depending on the time of year and location, there is a potential for behavioral disturbance or injury. Therefore, the Agencies recommend that Time-of-Year-Restrictions be used as a mitigation measure in areas where/when Atlantic sturgeon aggregation is likely to occur. As part of the ongoing Article VII proceeding, DWSF has agreed to the following condition in State waters:

> "*No in-water seabed disturbing work, including jet trenching trials, shall occur between May 1 to June 30 and September 1 to November 15 in any year to avoid the risk for incidental take of Atlantic Sturgeon, except that DWSF may be permitted to perform some limited seabed disturbing work activities (i.e., diver clearance and maintenance of the horizontal directional drill ("HDD") exit pit, and backfill of the HDD exit pit) May 1 through May 15 and November 1 through November 15. If backfill of the HDD exit pit occurs May 1 through May 15 or November 1 through November 15, DWSF shall develop an Atlantic Sturgeon Monitoring and Impact Minimization Plan. Such Atlantic Sturgeon Monitoring and Impact Minimization Plan must*

> *meet the substantive requirements of 6 NYCRR Part 182, and shall be included as part of the EM&CP. DWSF shall provide the Atlantic Sturgeon Monitoring and Impact Minimization Plan to New York State Department of Environmental Conservation ("NYSDEC") forty-five (45) days prior to filing of the EM&CP for NYSDEC's review and comment."*

35. The document states that "a limited amount of concurrent pile driving at neighboring projects is anticipated under the No Action alternative. The MARI WEA has the greatest potential for concurrent pile driving for construction of adjacent projects." DWSF and BOEM should coordinate with neighboring projects to ensure that "[c]oncurrent pile driving associated with neighboring projects or within a project" does not occur, allowing animals to seek refuge from the disturbance.
36. Appendix G, Table G-1 states that "Passive acoustic monitoring (PAM) would be used to support visual monitoring efforts when visibility is limited or when nighttime operations are conducted." The developer should consider expanding the use of Passive Acoustic Monitoring (PAM) and thermal monitoring to help detect North Atlantic Right Whales during all weather conditions.
37. The Agencies support the development of a pile driving sound source verification plan and field verification as outlined in Table G-2. These measures are critical for the health of endangered species and other marine mammals and fish.
38. The Agencies support the development and implementation of a pile driving monitoring plan and Protected Species Observer (PSO) requirements as outlined in Table G-2. It is critical that contractors are educated on and plan for endangered species safety precautions.
39. The Agencies support the adoption of all the mitigation and monitoring measures detailed on pp. G-8 through G-15 for endangered species. These measures are all important to protect and collect information on endangered species.
40. The DEIS should include an evaluation of alternative pile installation techniques to minimize the potential impacts to marine mammals. Further, BOEM should consider requiring DWSF to develop a risk mitigation plan for marine mammals.
41. The information on sea turtles in the DEIS focuses mainly on data from the MARI area. The DEIS should also consider data from NYS waters and the New York Bight, including data from the Atlantic Marine Conservation Society, the New York Marine Rescue Group, DEC Large Whale Aerial Surveys, and NYSERDA Digital Aerial Surveys.
42. In 2018, there was a confirmed nesting event for a Kemp's ridley on Long Island. This should be noted in the DEIS.
43. The Agencies recommend that the DEIS clearly state the current lack of data regarding the impacts that the Proposed Action may have on sea turtles and allow for the possible need for refinement in mitigation measures if/when more information becomes available.

Birds and Bats

44. In addition to bird deterrent devices, continued monitoring of birds and bats at the offshore facility is necessary. Motus receivers should be installed, and collaborative research efforts

should utilize automated radio telemetry to document the presence and movement patterns, particularly for focal species (e.g., ESA listed species) within the project area.

45. The DEIS should discuss mitigation methods proposed to limit the interaction between offshore wind turbines and migrating birds. For example, recent empirical evidence supports that Piping plovers cross the Atlantic outer continental shelf rather than follow the coastline when migrating (Loring et al., 2020).[10]
46. In Section 3.4.3.2.3, p. H-47 it states that construction activities are scheduled to occur "outside of the tern and plover breeding periods (i.e., April 1 through August 31)" However, to avoid the potential for a direct take of these species, construction activities should also not be scheduled during the fall migration period. As part of the ongoing Article VII proceeding, DWSF has agreed to no construction or maintenance activities occurring within 500 feet of the southern edge of the beach/pavement boundary between April 1 and November 1. By extending the no work window to November 1, it alleviates concerns that noise and other temporary construction and maintenance activities may deter or otherwise impact nesting or migrating shorebirds, including least tern and piping plover. Appendix G, Table G-2 proposes that the developer be required to report "any dead or injured birds discovered on Project vessels or structures." The DEIS should discuss what methods the developer considered to monitor collisions and recover bird and bat carcasses.
47. A discrepancy exists related to tree-clearing activities for the onshore portion of the facility. Appendix H, p. H-36 reads "…tree removal, vegetation clearing, and other major noise-producing activities near potential bat habitat would take place during winter months when northern long-eared bats are not present…". However, Appendix G, Table G-2 p. G-6 indicates that tree clearing time-of-year restriction will "Require that trees greater than 3 inches (7.6 centimeters) diameter at breast height not be cleared from June 1 to July 31." NYS does not agree that restricting tree clearing activities only in June and July is sufficient to avoid adverse impacts to bats. Further, as part of the Article VII proceeding, DWSF has agreed to the following condition:

> *"Northern Long-Eared Bat. Certificate Holder shall perform tree clearing activities between December 1 and February 28 to avoid potential impacts to Northern Long-Eared Bat ("NLEB"); provided, however, that if any proposed clearing activities are performed outside of the December 1 through February 28 window, roosting tree surveys shall be conducted in accordance with an NLEB Monitoring and Impact Minimization Plan, in coordination with NYSDEC. A Roosting Tree Survey Plan will be developed for the SFEC-Interconnection Facility and SFEC-Onshore in the Project Area, in consultation with NYSDEC, and will be included as part of the EM&CP. As part of the survey, biological monitors shall identify and evaluate any potential roosting trees for the NLEB. Emergence counts will be taken no more than 24 hours before tree removal to confirm that there are no NLEB roosting. This would occur through a combination of acoustic and*

[10] Loring, P. H., McLaren, J. D., Goyert, H. F., & Paton, P. W. (2020). Supportive wind conditions influence offshore movements of Atlantic Coast Piping Plovers during fall migration. The Condor, 122(3), duaa028.

visual surveys. If Certificate Holder or NYSDEC identify roosting trees within 150 feet of the Project Area, the Certificate Holder will coordinate with NYSDEC regarding any potential minimization and mitigation measures required to comply with 6 NYCRR § 182 and applicable federal laws and regulations promulgated by the USFWS."

48. Appendix G, Table G-1, p. G-3 states "The location of the SFWF, more than 18 miles (30 kilometers [km], 16 nm) offshore, would avoid the coastal areas, which are known to attract birds, particularly shorebirds and seaducks." NYS notes that many marked (e.g., tagged or banded) sea ducks have been observed up to 70 miles offshore with aggregations of birds up to 20 miles offshore. Given the location of this wind farm between Montauk, Block Island, and Cape Cod it is very likely that there exists a real threat to scoters and eiders. The location of this wind farm would be located between two Sea Duck Joint Venture key sites at Nantucket, MA and the south shore of Long Island, NY that represent continentally important sea duck areas.[11]

Socioeconomic and Cultural Resources

49. DEIS states on p. 3-114 that there may be negligible to major adverse impacts to cultural resources because it may not be feasible to avoid impacts to all of the identified ancient submerged landform features. What studies and analyses are currently underway to refine the landform features that may be affected and identify measures to avoid a finding of major adverse impact?
50. The Agencies recommend that mitigation measures include research or other investments in fishing methods within wind farms. As stated on p. 3-104: "some commercial fisheries and for-hire recreational fishing would have to adjust somewhat to account for disruptions due to local or notable regional adverse impacts."
51. For the analysis of commercial and for-hire fishing within the lease area, only Vessel Monitoring System (VMS) and vessel trip report (VTR) data were used to assess economic impacts. Automatic Identification System (AIS) data should also be included in this analysis because some vessels are not required to use VMS and many fisheries covered by VMS have only recently been required to do so. In addition, using VMS data from 2017-2019 to assess fishing activity within the lease area does not account for the fluctuations that can occur between fishing years.
52. Even though the Maximum Work Area encompasses both federal and New York State waters, revenue from New York State vessels in state waters is not included in this economic analysis. The Final EIS should include this information as there is extensive fishing with bottom-tending gear that occurs in New York State waters near the SFEC.
53. The geographic range used to analyze impacts to Commercial Fisheries and For-Hire Recreational Fishing includes data from Maine to North Carolina even though the states that will be most affected by the project are NY, CT, RI and MA. While this geographic range makes sense in terms of regional fisheries management, using this broad dataset to evaluate a

[11] https://seaduckjv.org/

specific fishing area leads to a diluted assessment of the overall effect on fisheries that operate out of the project area and cable route. Including states with little to no fishing activity in the area such as NC, VA, MD, and ME diminishes the ability to determine an effect of the Project on the fishermen that actively fish in the area.

54. The maximum landings presented on p. 3-86 do not reflect New York's numbers for the same timeframe. Please confirm what data sources were used for such information. In addition, in order to analyze cumulative fishing activity occurring within New York State waters, fishing activity in state waters should not be separated into federal and state fishermen.
55. For the For-Hire Recreational Fishing analysis on p. 3-87, the analysis done is primarily for the Rhode Island for-hire fishing vessels. As different states have different seasons for different species, analyzing only Rhode Island's for-hire fishing activity does not accurately reflect New York's for-hire fishing fleet. In addition, more analysis is needed relating to New York's for-hire fleet because fishing for striped bass is closed in federal waters for both recreational and commercial fleets and takes place solely within New York waters. As such, construction of the SFEC may result in more extensive effects on this species in New York waters.
56. While turbines may be easily seen during the day due to their large size and height above the water, this is not true for days with inclement weather. This, along with a potential for radar interference or scatter within the turbine arrays, could pose a risk to fishermen, especially those with vessels that are hard to maneuver due to fishing gear.
57. On p. 3-99, there is mention of a fisheries compensation plan that covers "undue interference with fishing access, transit or fishing gear." However, in other mentions throughout the DEIS, this plan is referred to as gear loss specific. More clarification and discussion, including with NYS, are needed on the terms of fisheries compensation being offered by the developer and how that compensation plan could mitigate the interference with fishing activities mentioned above.
58. More information is needed on fisheries compensation and why the Proposed Action would not lead to impacts on commercial and recreational fisheries businesses, including impacts to the cost of transit, fishing time, and fishing success. Further, the DEIS should include an explanation as to how vessel captains' compensation would benefit lower workers within the fishing community (e.g., deckhands, seafood processors, etc.).
59. The analysis should clarify how access to the SFEC during O&M activities would be negligible, even with the addition of cable protection measures that could potentially make areas along the SFEC unfishable to bottom-tending gear, as exampled with the Block Island Wind Farm project. Secondary cable protection measures are also mentioned as a mitigation measure that would improve fishing access. However, this statement is incongruous with feedback from the fishing community.
60. As requested in the Agencies' scoping comments, the analysis should evaluate growth-inducing aspects if improvements are made to the Montauk O&M facility and whether there could be adverse effects to existing uses including ferry service, seafood processing and distribution, transportation given limited onshore routing alternatives, and cumulative effects if the Proposed Action occurs concurrent with the USACE-proposed deepening activities.

Additional, site-specific detail should be provided describing potential impacts to demographics (Section 3.5.3) land use and coastal infrastructure (Section 3.5.5), vessel traffic and existing port operations (Section 3.5.6 and Appendix H), and cumulative effects (Appendix E).

61. The Navigation and Vessel Traffic analysis (Appendix H) is wholly focused on the lease area and does not contemplate the high vessel usage along the South Shore of Long Island that overlaps with the proposed SFEC. The COP Appendix X - Navigation Safety Risk Assessment also did not analyze risks to vessel traffic associated with the cable. The Agencies recommend a cable burial risk assessment be developed to analyze risks to the SFEC.
62. The analysis of offshore recreational impacts during construction on p. H-106 should be expanded beyond recreational fishing to include other recreational boaters, divers, and wildlife and whale watchers.

Cumulative Impacts

63. The DEIS identifies major adverse impacts for scientific research and protected species surveys because survey vessels are required to remain at least 1 mile from fixed structures (see p. 3-164). Significant federal investment is needed to evolve major scientific surveys to adapt and develop calibrations for long-term time series so that adequate surveys can be undertaken and offshore wind development does not become a dominant driver for fisheries management decisions. BOEM should continue to work expeditiously with federal partners to identify solutions that address these major adverse impacts.
64. Table E-9 (p. E-25), add the USACE Lake Montauk Harbor Feasibility Study.[12]
65. Table E-9 (p. E-26), update the description of New York State port investments to include Governor Cuomo's announcement during the January 13, 2021 State of the State Address to partner with developers to create five dedicated wind energy port facilities.[13]
66. Figure E-10 (p. E1-10), the cumulative visual impacts analysis should analyze the total number of blades visible from all projects in the WEA by measuring the 40-mile Maximum Visibility from the WEA boundary, not the SFWF project center.

[12] https://www.nan.usace.army.mil/Missions/Civil-Works/Projects-in-New-York/Lake-Montauk-Harbor/
[13] https://www.nyserda.ny.gov/About/Newsroom/2021-Announcements/2021-01-13-Governor-Cuomo-Outlines-2021-Agenda-Reimagine-Rebuild-Renew